
Regulation of epithelial-mesenchymal and mesenchymal-epithelial transitions by microRNAs.

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Public Summary:

Scientific Abstract:

Epithelial-mesenchymal transition (EMT) and the reverse process, mesenchymal-epithelial transition (MET), are essential during development and in the regulation of stem cell pluripotency, yet these processes are also activated in pathological contexts, such as in fibrosis and cancer progression. In EMT and MET, diverse signaling pathways cooperate in the initiation and progression of the EMT and MET programs, through regulation at transcriptional, post-transcriptional, translational, and post-translational levels. MicroRNAs recently emerged as potent regulators of EMT and MET, with their abilities to target multiple components involved in epithelial integrity or mesenchymal traits. By affecting EMT and MET processes, microRNAs are involved in the regulation of stem cell pluripotency and the control of tumor progression.

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